

Amendment
Serial No. 09/632,995

Docket No. 5000-1-122

IN THE CLAIMS:

1. - 2. (canceled)

3. (currently amended) A home-zone location registering method for a mobile switching center (MSC) ~~to provide for a home-zone service that charges at a first~~ charging rate for a telephone call made inside a predetermined home zone and at a second charging rate for a telephone call made outside the home zone, the method comprising the steps of:

checking whether a location registration request is received from a portable radio telephone;

if the location registration request is received, checking whether the portable radio telephone deviates from the home zone by checking whether the current position of the portable radio telephone is included in a home-zone list;

upon receiving a call origination from the portable radio telephone, releasing the call origination if the portable radio telephone is deviated from the home zone;

disregarding a call termination if the portable radio telephone deviated from the home zone receives the call termination; and,

preventing a paging by the MSC to notify the portable radio telephone that the

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portable telephone deviated from the home zone.

4. (original) The method as claimed in Claim 3, further comprising the step of informing the portable radio telephone when the call origination or the call termination is released.

5. (original) The method as claimed in Claim 3, further comprising the step of downloading the home-zone list in a memory means of the portable radio telephone.

6. (original) The method as claimed in Claim 3, wherein the first charging rate corresponds to a wired telephone call rate and the second charging rate corresponds to a radio telephone call rate.

7. (currently amended) A home-zone location registering apparatus for a portable radio telephone ~~to provide~~ for a home-zone service that charges at a first charging rate for

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a telephone call made inside a predetermined home zone and at a second charging rate
for a telephone call made outside the home zone, the apparatus comprising:

a memory for storing a home-zone list;

a receiving section for receiving a predetermined signal from a base transceiver
station (BTS);

a comparing section for checking whether the portable radio telephone deviates
from the home zone by comparing the predetermined signal from the BTS with the
home-zone list stored in the memory;

a location registration message generating section coupled to the comparing
section for generating a location registration message to attempt a location registration to
the mobile switching center when the BTS information is not included in the home-zone
list;

a transmitting section for transmitting the generated location registration message
from the location registration message generating section to the BTS.

8. (original) The apparatus as claimed in Claim 7, wherein the signal
transmitted from the BTS includes a base transceiver station identification (BTS ID)
information.

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9. (original) The apparatus as claimed in Claim 7, wherein the BTS ID information is transmitted via a paging channel.

10. (original) The apparatus as claimed in Claim 9, wherein the home-zone list includes a cell identification, a sector identification, and maximum and minimum round trip delay field information, defining the home zone.

11. (original) The apparatus as claimed in Claim 7, wherein the memory comprises a flash memory for storing the home-zone list.

12. (currently amended) A home-zone location registering apparatus for a portable radio telephone ~~to provide~~for a home-zone service that charges at a first charging rate for a telephone call made inside a predetermined home zone and at a second charging rate for a telephone call made outside the home zone, the apparatus comprising:

a memory for storing a home-zone list;

a receiving section for receiving a predetermined signal from a base transceiver station BTS;

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a comparing section for checking whether the portable radio telephone deviates from the home zone by comparing the home-zone list to a sector of a currently tuned base transceiver station from the signal received by the receiving section;

a location registration message generating section for confirming that the portable radio telephone deviates from the home zone if the sector of the BTS identical to the sector of the currently tuned BTS does not exist in the home-zone list and for generating a location registration message to attempt a location registration to the mobile switching center; and

a transmitting section for transmitting the generated location registration message to the base transceiver station.

13. (original) The apparatus as claimed in Claim 12, wherein the home-zone list includes a cell identification, a sector identification, and maximum and minimum round trip delay field information, defining the home zone.

14. (original) The apparatus as claimed in Claim 12, wherein the memory comprises a flash memory for storing the home-zone list.

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15. (currently amended) A home-zone location registering apparatus for a portable radio telephone ~~to provide~~ for a home-zone service that charges at a first charging rate for a telephone call made inside a predetermined home zone and at a second charging rate for a telephone call made outside the home zone, the apparatus comprising:

a memory for storing a home-zone list;

a receiving section for receiving a predetermined signal from a base transceiver station (BTS);

a comparing section for checking whether the portable radio telephone deviates from the home zone by detecting a pseudo noise code of a currently tuned BTS from the signal received by the receiving section and for comparing the detected pseudo noise code with the home-zone list stored in the memory;

a location registration message generating section for confirming that the portable radio telephone deviates from the home zone if the pseudo noise code identical to the detected pseudo noise code does not exist in the home-zone list and for generating a location registration message to attempt a location registration to the mobile switching center; and,

a transmitting section for transmitting the generated location registration message to the base transceiver station.

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16. (original) The apparatus as claimed in Claim 15, wherein the home-zone list includes a cell identification, a sector identification, and maximum and minimum round trip delay field information, defining the home zone.

17. (original) The apparatus as claimed in Claim 15, wherein the memory comprises a flash memory for storing the home-zone list.